

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 71S0522.WO27				FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)				
International application No. PCT/IT 02/00622				International filing date 30.09.2002	(day/mont	h/year)	Priority date (day/monthlyear) 30.09.2002	
ı	nation		ent Classification (IPC) or bo	th national classification	and IPC		,	
Appli SYS		1 S.p.	A. et al.					
1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.							
2.	This REPORT consists of a total of 4 sheets, including this cover sheet.							
	This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).							
	These annexes consist of a total of 4 sheets.							
3.	This	repor	t contains indications rela	ating to the following it	tems:	-		
	ı	\boxtimes	Basis of the opinion					•
	H		Priority					
	Ш		Non-establishment of o	pinion with regard to r	novelty, in	ventive step ar	nd industrial applicability	
	IV		Lack of unity of invention	on	·			
	V Reasoned statement under Rule 66.2(a)(ii) w			rith regard atement	to novelty, inv	entive step or industrial applic	ability;	
	VI		Certain documents cite	d				
	VII		Certain defects in the in	nternational application	า			
	VIII Certain observations on the international application							
Date of submission of the demand			Date of c	completion of this	report			
10.09.2003					23.12.2	2003		
Name and mailing address of the international preliminary examining authority:				I	Authorize	ed Officer		LECYES MID
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465				6 epmu d		mayer, W ne No. +49 89 23	399-8172	ON THE PROPERTY OF THE PROPERT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IT 02/00622

I.	Pac	ic	of	the	rep	art
ı.	Das	113	u	uic	160	UIL

1. With regard to the **elements** of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	Des	scription, Pages						
	1-1	0	as originally filed					
	Cla	ims, Numbers						
	1-1	2	received on 03.12.2003 with letter of 02.12.2003					
	Dra	wings, Sheets						
	1/6-		as originally filed					
2.	Wit lanç	h regard to the lang u guage in which the in	uage, all the elements marked above were available or furnished to this Authority in the ternational application was filed, unless otherwise indicated under this item.					
	The	These elements were available or furnished to this Authority in the following language: , which is:						
		the language of a tra	anslation furnished for the purposes of the international search (under Rule 23.1(b)).					
		the language of pub	lication of the international application (under Rule 48.3(b)).					
		the language of a tra Rule 55.2 and/or 55.	anslation furnished for the purposes of international preliminary examination (under .3).					
3.	Witl inte	n regard to any nucl e rnational preliminary	eotide and/or amino acid sequence disclosed in the international application, the examination was carried out on the basis of the sequence listing:					
		contained in the inte	ernational application in written form.					
		filed together with th	ne international application in computer readable form.					
		furnished subsequently to this Authority in written form.						
		furnished subsequently to this Authority in computer readable form.						
		The statement that t in the international a	the subsequently furnished written sequence listing does not go beyond the disclosure application as filed has been furnished.					
		The statement that the listing has been furn	the information recorded in computer readable form is identical to the written sequence iished.					
4.	The	amendments have r	resulted in the cancellation of:					
		the description,	pages:					
		the claims,	Nos.:					
		the drawings,	sheets:					

INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

International application No.

PCT/IT 02/00622

5. 🗆	This report has been established as if (some of) the amendments had not been made, since they have	
	been considered to go beyond the disclosure as filed (Rule 70.2(c)).	

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

1-12

Inventive step (IS)

Claims No:

1-12

Yes: Claims No: Claims

Yes: Claims

1-12

Claims

2. Citations and explanations

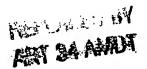
Industrial applicability (IA)

see separate sheet

INTERNATIONAL PRELIMINARY International application No. PCT/IT02/00622 EXAMINATION REPORT - SEPARATE SHEET

- 1. Reference is made to the following document:
 - (D1) US-A-5 499 746.
- Document D1 is considered to represent the most relevant state of the art.
 However, neither this document nor the other available state of the art mentions or renders obvious a container with rounded corners and an opening as cited in claim 1 (cf. D1, claim 1 and figures 1-4).
- 3. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

WO 2004/028769 PCT/IT2002/000622



20

-11-

Claims.

- 1). A device for containing and supplying loose materials, comprising: a support frame (5);
- a rigid container (2) mounted on the support frame (5) and exhibiting at least one opening (3);
- means (4) for opening or closing the at least one opening (3); wherein the rigid container (2) is rotatably constrained to the support frame (5) and wherein the device exhibits means (11) for rotating the container (2) on the support frame (5) about a rotation axis (x) thereof; the container (2) being mobile between at least a first position, in which the at least one opening (3) is located in an upper position for loading loose material into the container (2), and at least a second position, in which the at least one opening is located in a lower position for unloading the loose material from the container (2).
 - 2). The device of claim 1, wherein the container (2) exhibits a parellelepiped shape.
- 15 3). The device of claim 1, wherein the container (2) exhibits a cubic shape.
 - 4). The device of claim 2 or 3, wherein the container (2) exhibits rounded corners (10).
 - 5). The device of claim 2 or 3, wherein the at least one opening (3) extends at least partially along an access corner (10a) of the rounded corners (10) of the container (2).
 - 6). The device of claim 5, wherein the at least one opening (3) is parallel to the rotation axis (x) of the container (2).
 - 7). The device of claim 2 or 3, comprising a plurality of openings (3) which are reciprocally aligned along the access corner (10a) of the container (2).

WO 2004/028769 PCT/IT2002/000622



5

10

15

-12-

8). The device of claim 1, wherein the means for rotating (11) comprise: a cogged crown wheel (12) which is solidly constrained to the container (2) and which is coaxially arranged with respect to the rotation axis (x), the crown wheel (12) being predisposed to enmesh with a cogged pinion (13) which is activated by means of a hollow shaft (19) by a motor (14) which is solidly constrained on an external support frame (50) on which the support frame (5) can be housed.

9). The device of claim 8, comprising means for moving (17) the pinion (13) from an enmeshed position with the crown wheel (12), in which enmeshed position the motor (14) causes the container (2) to rotate, and a disengaged position from the crown wheel (12), in which the container (2) is stationary.

10). The device of claim 9, wherein the means for moving (17) the pinion (13) comprise:

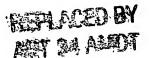
a support plate (21) rotatingly coupled with the hollow shaft (19);

at least two actuators (22) having longitudinal axes which are parallel to a motion direction of the pinion (13), connected at an end thereof to the external support frame (50) and at another end thereof to the support plate (21).

- 11). The device of claim 10, comprising means for blocking (18) the crown wheel (12).
- 12). The device of claim 11, wherein the means for blocking (18) the crown wheel (12) comprise a cogged plate (23) associated to the external support frame (50) and mobile between an enmeshed position with the crown wheel (12), corresponding to a disengaged position with the pinion (13), and a disengaged position with the crown wheel (12), corresponding to an enmeshed position with the pinion (13).
- 13). The device of claims from 5 to 7, wherein the means (4) for opening or closing the at least one opening (3) comprise:

 a small plate (25) mounted internally of the container (2) and mobile between a

WO 2004/028769 PCT/IT2002/000622



10

15

20

25

-13-

closed position, in which the small plate (25) closes the at least one opening (3), and an open position, in which the small plate (25) is displaced away from the at least one opening (3); and

means for moving the small plate (25).

14). The device of claim 13, wherein the means for moving the small plate (25) comprise:

a shaft (28) mounted in the container (2) at the access corner (10a) thereof and parallel to the access corner (10a); the small plate (25) being solidly constrained to the shaft (28); the shaft (28) being rotatable about a longitudinal axis (Y) thereof in order to displace the small plate (25) between the open position and the closed position;

a mechanism (29) for rotating the shaft (28).

15). The device of claim 14, wherein the mechanism (29) for rotating the shaft (28) comprises:

a fork (30) mounted transversally to the shaft (28) and an end (28a) of the shaft (28) which end (28a) is external of the container (2), the fork (30) being predisposed to interact with a first pivot (31) and a second pivot (32); the first pivot (31) being mounted on the external support frame (50) at a position

corresponding to an upper position of the at least one opening (3); the first pivot (31) being mobile between a distanced position from the container (2) and a close position to the container (2), and interfering with the fork (30) when the at least one opening (3) is located in the upper position and determining a displacement of the small plate (25) from the closed position to the open position;

the second pivot (32) being mounted on the external support frame (50) at a lower position of the at least one opening (3); the second pivot (32) being mobile between a position in which it is distanced from the container (2) and a position in which it is close to the container (2), and interfering with the fork (30) when



-14-

the at least one opening (3) is located in the lower position and determining a displacement of the small plate (25) from the closed position to the open position.

16). The device of claim 14, comprising elastic return means (34) which act upon the shaft (28) to keep the small plate (25) in the closed position thereof.